

Chester County School District Technology Plan

Plan effective thru June 30, 2014

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Executive Summary

The hardware leasing plan has worked well within the District and provides a plan for continued refreshment of hardware on a three-year cycle. The 2009-2013 plan is to continue this program and add more workstations throughout the District to facilitate the integration of technology within the schools. Expansion of this program is being considered to provide additional technology such as multimedia carts, mobile labs, and other hardware items through a leasing arrangement. During the 2008-09 year, the District incorporated a number of interactive white boards into the leasing plan for a four-year term.

By August 2010, a new student information system program will be in use in all South Carolina districts. Infrastructure preparations and training will begin in 2009. It is unclear what additional hardware and resources will be required for the new software. Additional components are a grade book and the ability for parents to access their students' grades online.

District Needs Assessment

The District's original technology plan included a plan to grow the installed base of workstations to a minimum of five per classroom. That plan has been revised to increase the future student-to-PC ratios by providing more mobile solutions such as mobile laptop carts and multimedia carts. An expansion of our wireless capability will continue to be a necessity as we move forward with more mobile carts and laptops. In an effort to impact the largest number of students possible with our technology funds, a large quantity of interactive white boards were purchased and the District achieved a better than 1:2 board-to-classroom ratio by the end of the 2007-2008 school year. Our plan is to continue using funds to purchase technology that affects the largest number of people and moves us closer to our goal of technology infusion and integration.

The district continues to use IBM hardware to support a VMWare virtual server environment but we plan to decentralize servers in the future to offload some of the WAN traffic currently coming to the District Office. We continue to use a SAN containing 2 TB of data storage to support systems for our instructional and administrative systems.

Meetings have taken place between Chester County School District, SCDE, TruVista, and SpiritTel in an effort to redesign our existing network to avoid any single points of failure, confine as much traffic as possible to each individual site, improve throughput and correct some of our network design issues. In our current configuration, we have sites connected to the DO through other sites. This scenario creates a situation where a piece of equipment can fail in one site and result in several sites losing network access. Our plan is to implement a hub-and-spoke design to give each site direct access to the District Office where some of our applications and data are centrally located. Implementation of this plan will be dependent on the CIO's success in obtaining E-Rate funding for their

portion. Additional infrastructure components will be required for this design in order to provide sufficient bandwidth to all schools as increasingly more web-based solutions become available.

During the 2009-10 school year, the IT Department will begin the server decentralization in an effort to confine some of the network traffic to the schools. This philosophy will facilitate the implementation of more technologies that require increased bandwidth usage such as the Odyssey software, PowerSchool (the new student information system), eChalk communication software, an ever-increasing usage of the Internet, and a streaming media server. Since the allocated bandwidth provided by our ISP (Spirit Telecom) is 10 mg (based on student population of district), we have decided to pay additional costs to receive 20 mg of bandwidth to the Internet. As we acquire more applications and services that are web-based, our needs for additional bandwidth to the Internet will become even more important. There are still numerous switches within the district that need to be upgraded to take advantage of the speed of the links between sites. Additionally, there are some sites with inferior cabling and network designs that restrict throughput in those locations. It is our goal to achieve more consistency with our infrastructure at all locations.

The District continues to use the “Measurement of Academic Progress” (MAP) solution for the purpose of periodically measuring the academic progress of our students. This testing solution is used several times within the school year. The use of the TestView data warehousing and data analysis package has been received well within the District and the capability of the program to provide an Individual Academic Plan (IAP) for each student on an ongoing basis has been a valuable tool. It is the intent of the District to continue use of the TestView product. The Odyssey software has become an important tool within the district. The Odyssey solution interacts with the MAP software to obtain a student’s RIT range. Odyssey then produces a customized instructional learning path based on the RIT range of the student. During the 2008-09 school year, a pilot project was conducted at the Chester Park Complex with a software program called “MAPTrakker”. This software utilizes the MAP test data for each student, incorporates the data into a matrix that displays standards for each subject, and facilitates the build appropriate lesson plans to address subject areas as indicated on the student’s test data.

The District faces some construction-related decisions during the 2009-2013 time frame. Our charter school is expanding as well as our District Office. Since both are housed in the same building, one of them will relocate to another facility. This move will require accommodations for access to the district WAN as well as building infrastructure. In addition, our Adult Education program will possibly move from their current location resulting in infrastructure modifications that will need to be made at their new facility as well as changes in the old facility to accommodate the growing Alternative Education program that will absorb the space previously housing the Adult Education program. The district will be

considering the implementation of IP telephone in new buildings as well as existing. There will be infrastructure requirements to facilitate changing technologies and any construction efforts that may take place.

The plan to implement a data imaging solution for the purpose of data storage and retrieval did not take place during the 2005-2006 timeframe due to budget constraints. The district will continue to evaluate this plan and plan to implement a solution during the 2009-10 school year.

Our schools need additional equipment to provide additional wireless access due to the fact that not all locations have an adequate number of wireless access points. It is the district's goal to have every building saturated with wireless capability. The expansion of our wireless network will provide access throughout each school and enable visiting faculty and other visitors access to our network for education purposes. Another component of the expansion of wireless capability within the District is to focus on wireless security at all sites.

Increased usage of handheld wireless devices is anticipated as administrators and teachers rely more heavily on their ability to access data at any time from virtually any location. We anticipate increased usage of various hand-held technologies, many of which will require consistent wireless access or the use of mobile broadband cards.

Our current web-based communications software, eChalk, has been extremely well received. We have purchased a limited number of student email accounts and the addition has been well-received. The district hopes to increase and improve parental and community involvement as a result of some of the eChalk features. The ability to see students' grades and an emphasis on the need to keep all web pages up to date will be a valuable tool in each school's goal of increasing parent and community involvement. It is the district's desire to increase the number of email licenses after a successful pilot. Additional user licenses are a goal as well.

Budget cuts continue to impact the IT Department, as well as other areas of the District. It is the department's intention to continue to utilize contracted services when possible, for both the Help Desk personnel as well as our higher level infrastructure support. This gives us the flexibility to have additional assistance when needed without the commitment of additional salary and benefits expenses during slower times of the year. We have utilized centralized software distribution, remote desktop management which enables us to reduce support costs associated with going onsite for all troubleshooting, and a ticket system to track support requests. Enhanced security will be a focal point for the upcoming year and additional equipment and software will be evaluated for the purpose of providing additional security for District data.

Additional professional development continues to be a need within the district. There are ongoing plans to provide training in the areas of eChalk, Odyssey, basic technology, ePortfolio, Microsoft Office products, and various other technology-related products in addition to other professional development training. All certified staff members in addition to all eighth grade students have participated in the Technology Assessment initiative for the purpose of meeting State and Federal requirements related to E2T2 funding and NCLB. It is our intent that at least one individual will be hired to analyze technical assessments and get teachers started with the ePortfolio program. At a minimum, the 74 individuals currently in the first year of their 5-year recertification process will participate in the ePortfolio project. The IT Department recently purchased a new software tool for tracking professional development of certified staff that will provide valuable reporting capabilities as well as other time-saving tools for our professional development coordinator.

APPENDIXES

Appendix 1 – No Child Left Behind

1.1 Goals in this section have been achieved and implementation is continuing.

1.2

- Goal 1 Strategy 1 achieved and ongoing.
- Goal 1 Strategy 2 was accomplished with the partial exception of professional development on infusing technology throughout the curriculum. The district has been providing regular professional development offerings that include sessions on technology integration. It is our goal during the 2009-2013 school years is to continue to provide a variety of such offerings.
- Goal 1 Strategy 3 has been partially achieved. With additional funding the District plans to develop a comprehensive technology training program beyond the basic program currently in place.

Goal 2

- Goal achieved and implementation ongoing

Goal 3

- Goal achieved and implementation ongoing

1.3

Category 6 cabling has been installed with the exception of the additional cabling needed at Lewisville Middle School to accommodate the planned wireless access points, the Career Center, the Adult Education building, and some areas of other schools that need additional cabling. The District will be seeking e-rate funding for the purpose of installing CAT6 cabling for the wireless access points needed at those sites as well as supplemental cabling and wireless solutions where needed. An emphasis will be placed on wireless access but additional hard wiring will be done when appropriate. Most sites need an expansion of their current wireless access and services may need to be purchased to facilitate this project. Wireless security, PDAs, and the increase in data devices will continue to drive LAN and WAN additions and changes.

1.4 As mentioned earlier in this document, funding will be sought to provide technology integration positions and/or professional development to enhance teachers' technical proficiency.

1.5 Goal achieved and implementation ongoing

- 1.6 It is our goal during 2009-2013 to supplement the original quantities of interactive white boards with additional units of the same configuration as well as a more sophisticated configuration incorporating mobile electronic white boards.
- 1.7 Goals achieved and implementation ongoing
- 1.8 We did not expand distance learning labs into the middle and technology magnet schools but are continuing to look at this during the 2009-2013 school years. The District continues to use the Novanet software as a credit recovery solution. It has proved to be a valuable tool.
- 1.9 Goals in this section in regard to the web interface software were met by licensing eChalk as mentioned earlier in the plan. Goals were met regarding community-based tutorial sites through PC-loaner programs to local churches.
- 1.10 Goals achieved and implementation ongoing
- 1.11 Goals achieved and implementation ongoing. Survey software such as Zoomerang being used as a survey tool in the District with good response.
- 1.12 Goals achieved and implementation ongoing

Software

The evaluation of software is an on-going endeavor shared by the Instruction Services Division, Associate Superintendent's office, IT Department and others departments as appropriate.

Appendix 2. Professional Development and Recertification

- 2.1 Chester County School District is using the technology assessment tool provided by the SCDE to determine proficiency levels for all certified staff at the school level as well as all eighth graders in the district. Results from these assessments will be used to recommend appropriate professional development classes to assist staff and students in achieving technical proficiency. This initiative has been completed and the data will begin to be used in the 2009-10 school year to aid in designing technical professional development classes for certified staff.

Internet/Network Acceptable Use Policy

Technology is a vital part of education and the curriculum of the School District. In an effort to promote learning and expand educational resources for students, the District has made arrangements to provide Internet access to students and staff. The District's goal in providing this service is to promote educational excellence by facilitating resource sharing, communication, and innovation. Access to the Internet, an "electronic highway" connecting millions of computer users all over the world, will allow School District students and staff the opportunity to communicate with others on a global level and access educational materials worldwide.

Access to the Internet is a privilege, not a right. With this privilege there also is a responsibility to use the Internet solely for educational purposes and not to access inappropriate materials unsuitable for students. To that end, the School District administration is directed to develop appropriate guidelines governing the use of District computers to access the Internet.

As part of the implementation of the administration's guidelines, students and staff must be instructed on the appropriate use of the Internet. In addition, parents must sign a permission form to allow students to access the Internet. Students also must sign a form acknowledging that they have read and understand the Internet Acceptable Use Policy and administrative regulations, that they will comply with the policy and regulations, and that they understand the consequences of violating the policy or regulations. District staff must sign a similar acknowledgment form before they will be allowed to access the Internet. Inappropriate use by any person will not be tolerated.

I. Internet Access

Students and staff will be provided access to the Internet because we consider technology to be a vital part of the education process and the curriculum of the District. By providing this access, the District intends to promote educational excellence and allow access to resources unavailable through traditional means. Through the Internet, students and staff will have access to the following:

- Electronic mail communication with people all over the world.
- Information and news from NASA, as well as the opportunity to correspond with scientists at NASA and other research institutions.
- Public domain software and graphics of all types for school use.
- Many university library catalogs, the Library of Congress, and large collections of information of educational use.

With access to computers and people all over the world also comes the availability of material that may not be of educational value. The School District has taken precautions to restrict access to controversial or inappropriate materials. However, on a global network it is impossible to control all materials and limit all access to information which has no educational value. The School District firmly believes that the valuable information and the interaction available on this worldwide network far outweigh the possibility that users may obtain material that is not consistent with the educational goals of the District.

The smooth operation of the Internet network relies on the proper conduct of the end users who must adhere to strict guidelines. These guidelines are provided in this document so that you are aware of your responsibilities when using the Internet. Any violations of these guidelines will subject the user to appropriate disciplinary action and possible denial to access to the Internet.

II. Terms and Conditions of Use

A. Acceptable Use

The purpose of the School District's decision to provide Internet access is to allow an expanded opportunity for research and education by providing access to unique resources and the opportunity for collaborative work. All use of the Internet must be in support of education and research and consistent with the educational objectives of the School District. Use of other organizations' networks or computing resources must comply with the rules appropriate for that network. Transmission of any material in violation of any national or state laws or regulations is prohibited. This includes, but is not limited to, copyrighted material, threatening or obscene material, or material protected by trade secrets.

B. Procedures for Use

1. Administrators and teachers may access the Internet for educational or work-related purposes at any time which is not disruptive and does not interfere with the performance of other responsibilities by the employee or other staff member.
2. Students will be allowed access to the Internet only through their teachers. No students may access the Internet without permission. Student use must be supervised at all times by a staff member.
3. All users must sign in on a log-in sheet before each use. Log-in sheets will be available for each terminal.

C. Rules Governing Use

1. The use of the Internet is a privilege, not a right, and inappropriate use will result in cancellation of Internet privileges. All staff and students must abide by the generally accepted rules of network etiquette, including the following: Be polite. Do not be abusive in messages to others. Always use appropriate language. Do not disrupt, harass, or annoy other users. Profanity, vulgarities, or other inappropriate language is prohibited. Illegal activities are strictly forbidden.
2. Never reveal the personal address, phone number, or any other personally identifiable information that may lead to the identity of yourself or others.
3. No video, still pictures, or audio clips of students will be published without permission from the student's parent or guardian.
4. Note that electronic mail is not guaranteed to be private. People who operate the system have access to all mail. Messages relating to or in support of illegal or inappropriate activities will be reported to the appropriate authorities.
5. All communications and information accessible via the network should be assumed to be private property. Always cite all quotes, references, and sources.
6. Never access inappropriate or restricted information, such as pornography or other obscene materials, or other information not directly related to the educational purposes for which access is being provided. Restricted information includes obscene, libelous, indecent, vulgar, profane, or lewd materials, advertisements or products or services not permitted to minors by law, insulting, fighting, and harassing words, and other materials which may cause a substantial disruption of the academic environment.
7. Vandalism also is prohibited and will result in cancellation of privileges. Vandalism includes any malicious attempt to harm or destroy data of another user, and includes, but is not limited to, the uploading or creation of computer viruses. Vandalism also applies to the technology equipment made available to you by the Chester County School District.

8. All users should remain on the system only as long as necessary to complete their work, so that other individuals will have equal opportunities to access the Internet.
9. All users should use the Internet only for research and academic reasons; non-academic uses are prohibited. Do not use the system for financial or commercial gain.
10. Always follow the instructions of the supervising staff members.

III. Penalties for Improper Use

An employee who violates the terms of the Administrative Rule or otherwise misuses the Internet to access inappropriate material will be subject to disciplinary action, up to and including discharge. In addition, the privilege of accessing the Internet will be subject to cancellation for up to one year. Students who violate the terms of this administrative rule or who otherwise misuse their access to the Internet also will be subject to disciplinary action in accordance with the District's Student Behavior Code. Internet access privileges may be canceled for up to one year. Violations of the laws of the United States or the State of South Carolina also may subject the user to criminal prosecution. If a user incurs unauthorized costs, the user, as well as the user's parents if the user is a student, will be responsible for all such costs.

INTERNET/NETWORK ACCEPTABLE USE POLICY

Staff member Certification Form

I have read and understand the school district's internet/network acceptable use policy and administrative rule. I understand and will abide by the conditions and rules set forth therein. I further understand that violations of these conditions and rules are unethical and also may constitute a criminal offense. Should I commit any violation, my access privileges may be revoked, disciplinary action may be taken, and appropriate legal action may be instituted. I also agree to be responsible for any unauthorized costs incurred by my use of the network. The staff member whose signature appears below has advised me of the acceptable use policy and administrative rule.

User's name (please print): _____

User's signature: _____ **Date:** _____

Staff member's name (please print): _____

Staff member's signature: _____ **Date:** _____

User Agreement and Parental Permission

As a user of the Chester County School District computer network, I hereby agree to follow any and all of the above stated rules governing Internet and network usage and will communicate over the network in an ethical and reliable fashion while honoring all relevant laws and restrictions. I have read the Internet/Network Appropriate Usage document and understand the consequences of inappropriate usage.

Student name (Please print) _____

Student Signature _____ **Date:** _____

As the parent/guardian of the minor student whose signature appears above, I grant permission for my son/daughter to access networked computer services, including electronic mail (if provided) and the Internet. I understand that the District may hold individuals and their families liable for infractions.

I understand that even though the District takes every measure to protect the student from objectionable material, and has in place numerous filters and blocking methods to block these same materials on the Internet from reaching the student, there is no 100% reliable method. I accept responsibility for guidance of Internet use, setting and conveying standards for my son/daughter to follow when selecting or exploring information and media.

Parent signature: _____ **Date:** _____

Name of Student: _____ **School:** _____

Grade: _____ **Birth Date:** ____/____/____

Street Address: _____

City/Community: _____

Home Telephone #: _____